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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/610,704	07/06/2000	Max F. Kilger	A33004-066237.0103	5629

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EXAMINER

HECK, MICHAEL C

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/610,704

Applicant(s)

KILGER ET AL.

Examiner

Michael Heck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

1. The following is a First Office Action in response to the application filed 06 July 2000. Claims 1-16 are pending in this application and have been examined on the merits as discussed below.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 60, 610, and 790. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because of the use of legal phraseology, such as "said". Correction is required. See MPEP § 608.01(b).
4. The disclosure is objected to because of the following informalities:
- On page 10, line 8, delete "and a fourth connection 55, respectively", and insert --and a fifth connection 60, respectively--.
 - On page 16, line 15, delete "(step 615), and insert --(step 610)--.
5. The above citation is a mere guide. Applicant is requested to review the specification thoroughly to eliminate additional errors. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-16 are rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention.

On January 25, 1999, MasterCard International and Symmetrical Resources announced a tool, Media Advisor, to help retailers, media companies, and ad agencies analyze consumer behavior. The first tool, Merchant Advisor, is geared for retailers, while Media Advisor targets ad agencies, broadcasters, and print buyers and sellers. MasterCard data is combined with the Simmons market and media studies to come up with an in-depth picture of U.S. consumers. Advertising Age, InformationWeek, and American Banker, Inc published the Articles. On February 18, 1999 and February 22, 1999, additional articles were released by Business Wire and M2 Presswire giving more information on the product, such as by combining the MasterCard database information with the Simmons data, TDS is able to match transactional behavior to information on product/brand preferences, lifestyle statements and media consumption, creating “shopping clusters”. The clusters group consumers together based on how they shop, painting a more accurate picture of who the customers are. A March 1999 article by Card Marketing identified as an advantage of Merchant Advisor, the ability for merchants to receive ongoing measurements of quantifiable information. American Demographics in April 1999 disclosed the Merchant Advisor Report that covers consumer buying habits in more than 30 categories. By

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analyzing the MasterCard's 670,000 randomly selected users transactions, TDS can cluster consumers by shopping behavior to include what they buy, where they shop, and how much they spend. Although the news and journal articles are not explicit as to the details of the process of integrating the information stored in the disparate database, the description in the news and journal articles correlate directly with the claimed invention. For instance, as revealed in the article, the process includes integrated disparate databases, consumer transactional information, consumer clusters, and quantifiable consumer statistics that are used to predict consumer behavior as described in claims 1, 2, 4, and 7. Therefore, taking the article in totality, it is respectfully submitted that the evidence supports applicant has publicly used and/or put on sale the claimed invention.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Depompa (Depompa, B., There's Gold in Databases; new tools will help companies extract valuable information, InformationWeek, CMP Publications Inc., n561, January 8, 1996, start p. 52 [DIALOG: file 148]). Depompa discloses a process of integrating information stored in at least two disparate databases, the stored information including consumer transactional information comprising:

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- [Claim 1] identifying at least one qualitative variable which is common to each database; transforming the at least one qualitative variable into one or more quantitative variables; converting, into converted information, the consumer transactional information in each of the databases in terms of the one or more quantitative variables; and forming an integrated database for predicting consumer behavior by combining, from the disparate databases, the converted information (Para 3, 12, 16, Depompa teaches companies are building data warehouses to consolidate data located in disparate databases. Artificial intelligence is used to automatically search the data warehouse to find interesting patterns. Warehouses enable executives, managers, and other knowledge workers to work with the vast stores of transactional and decision-support data to respond faster to markets and make more informed business decisions. Business managers use Lotus Excel and Arbor Software's Essbase to analyze the data.)
- [Claim 2] selecting at least one discriminating subset of the at least one quantitative variable to create statistical drivers; and creating clusters by assigning each consumer in the integrated database to at least one of the subsets (Para 13, Depompa teaches a data warehouse stores large quantities of data by specific categories).
- [Claim 3] the steps of converting at least one discriminating subset into at least one super cluster; and assigning each subset and the consumers identified therein to one of the at least one super clusters (Para 13, Depompa teaches a data warehouse stores large quantities of data by specific categories. The examiner interprets specific categories to include super clusters.).
- [Claim 4] the at least one qualitative variable is a merchant and the one or more quantitative variable comprises one or more of the following: mean number of transactions per person for the merchant, mean amount per transaction for the merchant, mean household income of shoppers shopping at the merchant, and mean proportion of the shoppers for a particular area of the merchant (Para 32-34, Depompa teaches MasterCard International, Inc. processes 12 million cardholder transactions daily and uses data mining to extract all sorts of statistics about card holders. The data warehouse will let companies such as Shell view classes of credit-card holders and analyze how they use their cards. The examiner interprets classes of credit card holders to include mean number and amount per transaction.).
- [Claim 5] the step of prior to forming the integrated database, weighting the one or more disparate databases to adjust for the differences in size and in time encompassed (Para 11 and 22, Depompa teaches tools provide summaries of selected computations performed in the first level or roughly translated, the online analytical processing and multidimensional database analysis tools. Other business managers use Lotus and Sybase to analyze data. The examiner interprets analysis to include normalizing the data.).
- [Claim 6] identifying industries which have discriminate shoppers and grouping selected merchants into the at least one discriminating subset (Para 4, 36 and 37,

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Depompa teaches most companies want to use data mining to improve their knowledge of their customer and markets. Telecommunication companies want to use mining to forecast demand patterns, profile and segment customer groups. Financial-services companies are using data mining to consolidate information from multiple sources, analyze customers' business patterns and sell them more services. U.S. Healthcare Inc. is providing data analysis capabilities to its business partners and affiliates to create data warehouses that hospitals and other health-care providers can use to measure and assess their performance. Hospitals compare their own data to the national average.)

- [Claim 7] the consumer transactional information has instances of purchasing behavior by consumers for predicting the consumer behavior (Para 32-34, Depompa teaches MasterCard International, Inc. processes 12 million cardholder transactions daily and uses data mining to extract all sorts of statistics about card holders. The data warehouse will let companies such as Shell view classes of credit-card holders and analyze how they use their cards.).
- [Claim 8] includes joint account information for at least two consumers, and further comprising the step of determining a consumer of the at least two consumers who generated at least a portion of the consumer transactional information (Para 32-34, Depompa teaches MasterCard International, Inc. processes 12 million cardholder transactions daily and uses data mining to extract all sorts of statistics about card holders. The data warehouse will let companies such as Shell view classes of credit-card holders and analyze how they use their cards. The examiner interprets transactions include joint account information and identification of who executed the transaction).

Claims 9-16 recite substantial the same limitations as that of process claims 1-8, respectively, with the distinction of the recited process being a system. Hence, the same rejections for claims 1-8 as applied above apply to claims 9-16, respectively.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Anderson et al. (U.S. Patent 5,974,396) discloses a method and system for gathering and analyzing consumer purchasing information based on product and consumer

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clustering relationships. The information allows a retail business entity to determine and analyze buying behaviors with retailer consumer customers. Consumer household demographics, such as income, with transactional product logs are forwarded to a consumer purchase repository subsystem, which is a relational database management system.

- Miller et al. (U.S. Patent Appl. 2001/0037332) discloses a method and system for retrieving search results from multiple disparate databases to include the web.
- Lazarus et al. (U.S. Patent 6,430,539) discloses predictive modeling of consumer financial behavior. The method uses historical and time-sensitive spending patterns of individual consumers to create both meaningful groupings of merchants and a predictive model of consumer spending patterns for each of the merchant segments.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Heck whose telephone number is (703) 305-8215. The examiner can normally be reached Monday thru Friday between the hours of 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (703) 305-9643.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

**Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450**

Or faxed to:

(703) 305-7687 [Official communications; including After Final communications labeled "Box AF"]

(703) 746-9419 [Informal/Draft communication, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, Virginia, 7th floor receptionist.

mch
14 July 2003


**TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600**